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# **Embracing the Future: Four Key Trends in Telecommunications**

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## Executive Summary

Four key trends in telecommunications technology, competition, and regulation are changing the market and influencing the need for and goals of regulation. These trends are

1. The blurring of distinctions among telecommunications products and the rise of a new class of consumers who look at telephony simply as one of many ways to communicate.
2. The continued merging of companies, the consolidation of operations, and the divestiture of unprofitable segments in order to extend corporate reach and improve shareholder value.
3. Changes to the competitive landscape resulting from new products, new providers, and new consumer attitudes.
4. Legislation reducing regulation and oversight in response to competition among services and suppliers.

Telecommunications products, policy, and regulation have changed significantly as a result of the divestiture of AT&T in 1984, the local competition launched by the amendments to the Communications Act of 1934 provided in the Telecommunications Act of 1996 (TA96), and the new products made possible by new technologies. Wireless and voice over internet protocol-based products are supplanting traditional wireline service as the network moves from circuit-switched time division multiplexed technology (TDM) to broadband services carried via internet protocol. Long distance has become simply one part of a bundled service that also includes local, broadband, wireless, and television. And new technologies are even threatening to make voice calling obsolete for a segment of the population, as some customers eschew telephony altogether in favor of text messaging and other nonverbal communications technologies. In addition, competition has changed customer perceptions of service quality, as product substitution increases and multiple carriers provide consumers with multiple options.

As customers increasingly embrace broadband-based products such as cable voice and over-the-top voice over internet protocol calling packages, or even nonverbal communications like texting, their expectations for quality of service are changing, reducing the importance of some of the traditional quality-of-service metrics and requiring changes to others. For example, different categories of customers (i.e., those who use only core wireline services or those who do not have multiple product options) may require different quality standards, with less stringent standards applying for those customers with multiple calling services and stronger standards applying for those who use traditional wireline telephony only. Moreover, as consumer expectations change, their perception of the importance of communications quality may change as well. For example, texting quality and reliability may become increasingly important for nonverbal communications consumers, while the requirement for clear voice calls may diminish for customers who primarily use wireless or an over-the-top internet calling service. In addition, the ability for customers to communicate via multiple products and to create their own services

by purchasing components from multiple sources raises new questions about the intersection between industries, including how commissions should address the effect of long-duration power outages on services such as VoIP.

The continuing wave of mergers, acquisitions, and industry consolidation has, in some cases, reduced the number of discrete suppliers from which customers may choose, limiting competition. In addition, as companies increasingly bundle products together to increase customer retention, commissions will need to seek creative ways of ensuring that consumers understand exactly what they are purchasing and to what terms and conditions they have agreed. They will also have to ensure that consumers understand what, if any, regulatory recourse they may have for inadequate, unreliable, or declining service quality and pricing and billing issues.

In order to meet the challenges imposed by this new environment, regulators must understand these trends so that they may find new ways to respond to new technologies, changes in market structure, and evolving customer expectations. And they must use this knowledge to influence corporate behavior when traditional regulatory tools are no longer available. This paper discusses these trends and the issues they raise and proposes solutions to the need for new regulatory policy for a changing telecommunications environment.

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# Embracing the Future: Four Key Trends in Telecommunications

## Introduction

Telecommunications products, policy, and regulation have changed significantly as a result of the divestiture of AT&T in 1984, the local competition launched by the amendments to the Communications Act of 1934 passed by Congress in 1996 (TA96), and the new products made possible by new technologies. Wireless and voice over internet protocol–based products threaten to supplant traditional wireline service; long distance has become simply one part of a bundled service that also includes local, broadband, wireless, and television; and some customers even eschew telephony altogether in favor of text messaging and other new technologies. Competition has changed customer perceptions of service quality, as product substitution increases and multiple carriers provide consumers with multiple options.

Incumbent providers have responded to the multiple products and services available to customers from both traditional and nontraditional carriers by merging in order to enter new territories, divesting less profitable operations, concentrating their operations on their wireless and broadband offerings, and reducing the focus on their embedded circuit-switched facilities. They have also lobbied state legislatures to reduce or eliminate regulation. Some state legislatures have responded to these changes by reducing (or even eliminating) state regulators' authority to establish and enforce performance standards or, in some cases, even accept consumer complaints about services and providers. As a result of these legislative changes, telecommunications regulators find themselves caught between companies that maintain that there is no need for outside oversight and consumers and/or competitive carriers who seek state-commission intervention to resolve service, contract, interconnection, or other issues. What policies must regulators adopt (or modify) to fulfill their mission in light of these changes? What knowledge will be necessary to influence corporate behavior when traditional regulatory tools are no longer available?

To answer these questions, this paper identifies four key trends in telecommunications: **product substitution, market consolidation, changes in competition, and reduced regulatory oversight**. It evaluates the impact of these trends on consumers and companies; suggests ways in which regulators, legislators, and consumers can evaluate the level of choice available in these supposedly competitive markets; and addresses the question of finding new ways to measure service quality for nontraditional products and providers.

“Those who cannot remember the past are condemned to repeat it.”<sup>1</sup> To put these changes in perspective, let's first review a little telecommunications history.

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<sup>1</sup> George Santayana, *The Life of Reason* (1905-1906), available at [http://en.wikiquote.org/wiki/George\\_Santayana](http://en.wikiquote.org/wiki/George_Santayana)

Prior to 1984, AT&T was the primary supplier of voice communications throughout the United States, while rural carriers or large regional providers delivered service in areas where AT&T's service was uneconomic or unattractive.<sup>2</sup> Prices and service quality for all suppliers was controlled; customers could not choose their local or long-distance carrier, buy equipment from an outside supplier, or select calling features or service terms. Telecommunications carriers were closely regulated by the federal government and the states to ensure that wireline connectivity was a "common good" available to all. After a long antitrust battle, AT&T and the Department of Justice agreed to the Modified Final Judgment (MFJ)<sup>3</sup> in 1984, breaking the Bell System's monopoly over telecommunications services, creating the seven "Baby Bells," allowing competitors to interconnect with AT&T's transmission lines and switches, and giving customers a choice of long-distance carriers.

Congress amended the 1934 Communications Act in 1996 to open the market further by allowing competition for local calling. Although some states (for example, Pennsylvania and Michigan) were already undertaking efforts to open local markets prior to this federal legislation, the changes embodied in the Telecommunications Act of 1996 (TA96) made local competition in local markets a matter of federal policy. As a result, competitors like MCI, Sprint, and AT&T's former long-distance company entered the market for local service, and the incumbent local exchange carriers (ILECs) began to provide long-distance service. Customers learned to "shop" for a carrier based on price and product features, while providers began to shift their focus from the old wireline model of copper in the ground to the new services made possible by digital switches and carried over fiber-optic lines, including wireless and computer-based internet access services like Digital Subscriber Line Service (DSL) or communications using voice over internet protocol (VoIP).<sup>4</sup>

The way in which companies marketed their new products changed too, as the former Bell companies added long distance to their portfolios and the interexchange carriers added local to their offerings. This move heralded the start of "bundling" local and long distance use minutes into double- and then triple- (and in a few cases quadruple-) play products that blurred

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<sup>2</sup> The General Telephone and Electric Company (GTE) provided service to customers outside the AT&T territories, and many small companies provided service in rural areas. GTE was later purchased by Verizon.

<sup>3</sup> For a fuller explanation of the history of telecommunications competition and the impact of the MFJ and TA96, see *The Fundamentals of Telecommunications*, available at: [http://www.nrri.org/pubs/telecommunications/NRRI\\_telecomm\\_overview\\_jan11-03.pdf](http://www.nrri.org/pubs/telecommunications/NRRI_telecomm_overview_jan11-03.pdf)

<sup>4</sup> Digital switching made today's internet protocol switching possible. With IP switching, analog voice signals are converted to digital packets for transmission over copper, fiber, or wireless facilities and "reconstituted" as analog voice at the other end.



the distinction between local, intraLATA (local toll), and long-distance calls.<sup>5</sup> Regulators (and legislators) added to their traditional focus on tariffs and quality of service new concerns about promoting competition, arbitrating interconnection agreements, and resolving disputes between competitive providers, ensuring a level playing field for all competitors.

TA96 opened new markets for old companies, created new companies for old markets, and expanded both the products and the vendors from which consumers could choose. Most importantly, the legislation was accompanied by changes in technology that have since increasingly blurred the line between traditional wireline telecommunications, wireless telecommunications, and "digital voice products," including interconnected VoIP, over-the-top VoIP, and cable voice. These product changes have led to the market changes and customer-behavior changes that will significantly affect telecommunications customers, companies, and regulators going forward.

The following paragraphs explore these trends and their impact on regulators and regulatory policy.

## **I. Technology Has Blurred the Distinctions among Telecommunications Products, Resulting in a New Class of Consumers Who Look at Telephony Simply as One of Many Ways to Communicate.**

### **A. Customers see communications only as the ability to reach others; they do not discriminate by the type of media they use to make the call or the type of circuit that carries it.**

The 1934 Communications Act defines telecommunications as follows:

The transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received. 47 U.S.C. § 153 (50).

It does not define the device used to transmit the call or the underlying technology used to transport it from one location to another. Rather, it speaks simply of the passing of messages from one user to another.

Customer behavior validates this definition. To customers, communications is the act of passing a message from one person to another, regardless of the medium or the product used to carry the information. The distinctions among products and types of communications have blurred significantly since the breakup of AT&T, beginning with the introduction of buckets of

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<sup>5</sup> The conventional wisdom traces telecommunications product innovation to competition, although services like call waiting, caller ID, and voice mail had been present in digital switches and business private-branch exchanges since as early as 1981.

"anytime, anywhere, used for anything" minutes that eliminated the distinction between local and long distance and culminating in the substitution of wireless and VoIP communications for traditional wireline calling, but the meaning of and use for the communication have not changed. As the New Hampshire PUC recognized in a ruling on whether cable voice is a telecommunications service, customers consider calling simply "calling," whether they are using a digital voice service transmitted over the internet or a circuit-switched voice service transmitted over copper wires.<sup>6</sup> As the number of telecommunications products to which they have access has expanded, consumers simply choose the product they prefer, or the one that is most easily available, or the one most suitable for the occasion, regardless of who offers that product or what technology it uses.

For example, wireless callers have added Wi-Fi to their phones and choose between cellular and Wi-Fi communications depending on where they are located or with whom they are communicating. Wireline customers use their DSL connection to access over-the-top VoIP services like Vonage and Skype, while both wireline and wireless consumers use Google Voice and similar services to obtain a single "communications" number that allows "find me/follow me" service to function across platforms. Significant numbers of consumers have "cut the cord" completely and use wireless service only, both in the home (the traditional domain of wired and now internet-based telephones) and outside the home (the traditional domain of cellular providers). Others have moved from their wireline supplier to a cable company or added VoIP service to a broadband connection purchased from their wireline or cable company. The FCC's latest wireline competition reports that as of December 2010 there were 117 million end-user switched access lines in service, down 8% from 2009, while there were 32 million interconnected voice over internet protocol subscribers, up 22% from the previous year.<sup>7</sup>

Still another group of customers no longer uses voice at all, preferring instead to communicate via texting. As a recent Pew study points out, these consumers have rejected verbal communications entirely, preferring instead to text or tweet or email.

Some 83% of American adults own cell phones[,] and 73% of them send and receive text messages . . . [of those,] 31% said they preferred texts to talking on the phone . . . while 14% said the contact method they prefer depends on the situation.<sup>8</sup>

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<sup>6</sup> Petition for an Investigation into the Regulatory Status of IP Enabled Voice Telecommunications Services Order Denying Motion for Rehearing and Suspension of Order and Motion to Reopen Record Order 25,274, September 28, 2011.

<sup>7</sup> FCC Report on Local Competition as of December 2010, available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-310264A1.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-310264A1.doc)

<sup>8</sup> Americans and Text Messaging, available at <http://pewinternet.org/Reports/2011/Cell-Phone-Texting-2011.aspx>

Indeed, some commenters have even suggested that discriminating between different types of services is a "generational issue." Older users "remember" the distinction between wireline and wireless and the beginning of VoIP. Younger users see no difference at all between service types.

Although "landline" and "wireless" telephony are arguably different technologically, for consumers, wireline, wireless, fixed VoIP, or other communications like texting are increasingly coming to be viewed simply as "communications," regardless of the legal and technological differences cited by telecommunications professionals. Whether a consumer uses commercial mobile radio service (CMRS or wireless), wireline (including Verizon's FiOS or cable company VoIP), or texting to communicate, all these services rely at least to some extent on physical facilities: an interconnection trunk connected to a wireless tower, a cable loop, a telephone connected to a wall jack, or a modem inside the home. And all serve the same purpose: communications between parties.

Thus, the PSTN is not in danger of dying; it is simply changing from a Public Switched Telephone Network (PSTN) to a Packet-Switched Telecommunications Network (PSTN) that must still provide a path for each caller to connect to every other caller. This change raises the fundamental policy question of the role the states will have in addressing the disputes that will arise between carriers or between a carrier and consumers concerning interconnection, service quality, and prices for services provided over this increasingly advanced network.

**B. As more products enter the market, regulators will face challenges in assessing and ensuring quality of service.**

Quality is in the eye of the beholder. When customers have multiple, interchangeable product options, their expectations for service quality change. In some cases, customers become complacent about service degradation, and, rather than "voting with their feet" and moving to a company that provides better service, they move to a different product—for example, from wireline to wireless. In other cases, they simply accept that dropped calls or poor sound quality is "the nature of the beast" and assume that they cannot do anything about it. State commissions face an additional roadblock in dealing with this issue as state legislatures deregulate telecommunications services, removing many of the regulatory tools needed to deal with quality-of-service problems.

The challenges of ensuring quality of service facing many state commissions are legal and regulatory. Under federal law, only the FCC has jurisdiction over "information" service, while the states and the FCC share jurisdiction over "telecommunications" (unless the FCC or the state legislature preempts state power). As networks increasingly rely on internet protocol to provide services, the legal classification of internet-protocol voice, data, or video is often the touchstone for any remaining state authority.

Regulators can respond to competition and changes in service quality in a variety of ways, depending on local conditions. If a customer has multiple easily substitutable product choices, competition should advance to the point where little regulation is needed. In that case,

the purpose of regulation would be to act as a safety net against provider abuses, especially for those customers who are unable to choose among different providers and services because of economics or other reasons. In areas with fewer options, regulators may need to set quality standards, although such standards would be less important if there is enough competition for providers to compete on quality as well as on price. Finally, regulators may also need to oversee the market to make sure that it is operating in a way that benefits and protects customers.

In the following paragraphs, we discuss the way in which the trend toward blurring the distinctions among products has changed customer perceptions of service quality and suggest questions commissions should ask in order to redesign their quality-of-service plans to meet the twin challenges of changing customer expectations and limited regulatory oversight.

Traditional wireline service-quality metrics have focused on measurable, quantitative achievements—the time required to get a dial tone, the percentage of time service is available, the mean time required for a service bureau to answer calls, the mean time to repair outages, the number of outages per month, and line and sound quality, to name just a few. As more customers opt for alternate services and service providers, including those considered information services, regulators must determine whether and how these metrics should be adjusted to better reflect customer expectations. They may also have to add new metrics to cover the new situations raised by products that no longer fit the old definition of circuit-switched, line-powered telecommunications.

For example, VoIP services (including cable voice) and fiber-based services such as Verizon FiOS or AT&T U-Verse that use internet protocol to transmit calls depend on commercial electric power to operate. As customers move to these services, regulators will increasingly need to focus on the new questions raised by these products' dependency on electricity, particularly in terms of ensuring continued access to emergency services during commercial power outages. Some of the key questions regulators will need to address about service availability follow.

1. Customers who lose power for a lengthy period<sup>9</sup> will also lose their ability to make and receive calls, including those to emergency service providers. How should regulators respond to this problem?

Are customers who purchase over-the-top service or use nontraditional services responsible for providing backup power to their own VoIP modem, or is this a provider responsibility? Commissions currently receive calls from consumers who are concerned that their cordless landline telephones do not function without commercial power. These calls will increase as customers find that their broadband connections do not work without power either.

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<sup>9</sup> Cable and ILEC VoIP providers generally provide a battery capable of backing up the system for eight hours.

2. How should commissions deal with smaller carriers or over-the-top VoIP providers who do not provide (or even advertise the need for) backup power?

Should all providers be required to provide backup power? How should regulators ensure that consumers understand the need for battery backup? How should states that require access to 911 even when service has been suspended or disconnected (generally called “warm dial tone”) respond to this issue in a non-wireline environment?

3. Does the electric utility have a role in ensuring service quality and availability as services requiring commercial power replace line-powered wireline telephone service?

Regulators will increasingly need to consider the impact that commercial power outages will have on VoIP customers. Should regulators require electric companies to provide a special class of service for consumers who may lose phone service as a result of power outages, similar to the way in which these companies provide special repair times for customers with medical or other life-support devices? How will electricity suppliers meet the needs of communications providers as a result of such a regulatory mandate? Will these services be provided as an “enhanced” feature of electric service, or should communications carriers be responsible to ensure the reliability of their own energy supply?<sup>10</sup>

In addition to questions regarding the need for electric power, regulators will have to respond to issues raised by customers who create their own telecommunications service by stringing together products from multiple suppliers—for example, combining “naked DSL” or a standalone cable modem service with voice service from a nomadic VoIP company. They will also face questions from customers who purchase service from nontraditional companies like Magic Jack, which claims that it does not offer a communications service at all. How should regulators respond to the quality-of-service and availability issues encountered by these “do it yourself” consumers? Should commissions advise customers on how to determine which company is responsible for which outage? To what extent should regulators reach out to consumers to ensure that they understand the impact of purchasing products as components rather than a finished service?

Finally, regulators will need to find ways to address the importance of broadband service quality as the states and the federal government encourage consumers to do more of their business online, from applying for benefits to filing income taxes. When communications were primarily verbal, poor sound quality sometimes garbled content, requiring customers to “say it again.” Where transactions are carried over the internet, however, poor line quality may cause the transaction to fail completely, making the communication impossible.

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<sup>10</sup> A corollary to this question is the need for backup power to support smart-grid operations.

The availability of multiple telecommunications services may make some traditional quality measurements less critical, but it also raises new questions for commissions, legislators, and consumer advocates about their role in helping consumers understand the positives and negatives of these new products. In the end, regulators and legislators must determine whether the new products available in the telecommunications market will demand a new regulatory schema altogether.

**C. A number of states are already redefining quality-of-service metrics.**

The New York Public Service Commission (NY PSC) has recognized that different customers may require different service levels. In 2010, the PSC opened a proceeding to investigate the reasons for Verizon's failure to meet its traditional quality-of-service requirements, particularly the standards for timeliness of repair and mean time out of service. Verizon argued that the existing service-quality standards were outdated and did not take into account changes in technology, including the availability of alternative voice products such as wireless that customers could use until their landline service was restored. According to Verizon, customers feel less of an impact from the loss of telephone service than they used to, to the extent that some customers even request that the company postpone repairs beyond the 24-hour interval provided for in the New York service metrics.<sup>11</sup>

The NY PSC responded to this issue by mandating a service-quality plan based on the type of customer served rather than just the type of the service itself. The commission ordered the company to continue to improve its wireline availability and repair metrics, but to "focus [those] quality-of-service improvements on 'core' customers (i.e., residential and business customers without wireline competitive alternatives and those on Lifeline or characterized as having special needs)."<sup>12</sup>

Other states have also begun to investigate the reasons that carriers are failing to meet quality-of-service standards and to determine whether and how the standards themselves should be changed. Of particular concern in many of these reviews is whether incumbent carriers have relaxed their wireline maintenance programs to the extent that they are simply no longer technically capable of meeting the existing rules. In Connecticut, for example, the Public Utilities Regulatory Authority (PURA) has noted that Verizon has consistently failed to meet maintenance and out-of-service standards and initiated a proceeding to enforce those regulations. Verizon has countered that existing service-quality standards are not "accurate or appropriate

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<sup>11</sup> Order 10-C-0202 – Verizon Service Quality Improvement Plan. Order Adopting Verizon New York Inc.'s Revised Service Quality Improvement Plan With Modifications (Issued and Effective December 17, 2010), available at <http://documents.dps.state.ny.us/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=10-C-0202>

<sup>12</sup> Ibid.

proxies for customer expectations, given the decision by law makers more than fifteen years ago to move to a competitive local voice marketplace."<sup>13</sup>

In California, the Communications Division of the California Public Utility Commission (CPUC) reported on the quality of telephone service provided by wireline telephone companies in 2010. Based on the findings from that report, the CD recommended that the Commission open an Order Instituting Investigation (OII) and/or Order Instituting Rulemaking (OIR) to examine issues related to quality-of-service reporting, including changing or eliminating existing standards, clarifying the way in which out-of-service measures are calculated, and establishing a penalty mechanism for substandard performance. This investigation is ongoing.<sup>14</sup>

Commissions beginning a review of the need for revised quality-of-service standards should ask the following questions as part of that investigation.

1. If a customer has both a wired and wireless service, is loss of dial tone as significant a problem as it would be if the customer had only one connection?
2. How do we identify and protect those customers who do not have access to a secondary communications service?
3. To what extent has customer behavior changed the requirement for the mean-time-to-repair standard? Do customers with multiple services (for example, wired and wireless phones) simply switch from one device to another when one fails?
4. Does the availability of alternate trouble-reporting channels like web forms, Twitter, and email make service answer times less critical?
5. Is there actually enough competition to make switching to another carrier a viable option for consumers who are dissatisfied with service quality?

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<sup>13</sup> DPUC Investigation into the Quality of Telecommunications Service Provided by Verizon New York, Inc. Docket 10-12-16. Available at <http://www.dpuc.state.ct.us/dockcurr.nsf/8e6fc37a54110e3e852576190052b64d/5b2579af138e57398525780100675b7f?OpenDocument>

<sup>14</sup> *See* <http://www.cpuc.ca.gov/PUC/Telco/Consumer+Information/Telecommunications+Service+Quality+Reports.htm> for a copy of the CD report.

6. Does the commission retain the ability to mandate quality of service, at least for eligible telecommunications carriers (ETCs),<sup>15</sup> or will it need to find more creative ways to encourage industry to resolve service issues?
7. How can regulators work with providers to ensure service quality if state authority to mandate quality is withdrawn because the next generation of communications products is deemed an information service rather than a traditional telecommunications service?

In summary, as customers increasingly move to nontraditional products, commissions should explore the potential for developing targeted customer-service standards that specifically benefit the customers who are most at risk. Given the multiplicity of communications paths and tools available to customers, commissions need to collaborate with companies and consumers to match actual quality to customer expectations. To do this, commissions will need to review customer complaints/questions to identify key drivers of customer satisfaction and to work with providers to encourage them to review and resolve these issues.

## **II. "Bigger is Better, Isn't It?" Companies Will Continue to Consolidate in Order to Extend Their Reach and Reduce Cost.**

- A. Market consolidation is "the process of maturation in some markets whereby smaller companies are acquired or run out of business, leaving only a few dominant players."<sup>16</sup>**

Market consolidation has been a (perhaps unintended) consequence of technological change and product substitution in all industries, not just telecommunications. As a recent article in *The Hill* points out, "Antitrust law requires businesses to alert Justice to major deals; the agency received 1,666 notifications last year."<sup>17</sup> But the pace of consolidation in telecommunications appears to be faster and perhaps more widespread than in other industries.

As we noted previously, technology has increased the number of communications options available to consumers, but because these products serve multiple purposes, changes in technology have also reallocated the available telecommunications services market from the wireline carriers to VoIP or wireless carriers. Take, for example, the impact of broadband on the

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<sup>15</sup> Eligible telecommunications carriers (ETCs) are common carriers (including wireless carriers) who may receive universal service support as defined in 47 CFR 54.201. See <http://cfr.vlex.com/vid/54-201-definition-telecommunications-generally-19850153>

<sup>16</sup> <http://www.investorwords.com/1047/consolidation.html>

<sup>17</sup> <http://thehill.com/blogs/hillicon-valley/technology/184631-doj-taking-a-close-look-at-google-motorola-deal>



traditional wireline market for second lines. As sales of DSL and similar products that provide the simultaneous transmission of voice and data have grown, traditional voice carriers have seen a decrease in the sales of the second lines traditionally dedicated to fax machines and dial-up internet. Where the market originally included two lines in the majority of homes, it now includes only one, whether wireline or VoIP. If we expand this example to include wireless, the wireline market shrinks even further, and it becomes clear that there may not be enough customers on the remaining wireline connections to continue to support the robust competition envisioned by TA96.

The industry has responded to the reduced size of the traditional wireline market and the resulting growth of the market in other areas in two ways. The first has been to bundle products together in the hope of creating "sticky" offers<sup>18</sup> that will keep customers from moving from one competitor to another. The second has been to consolidate to achieve a larger footprint and reduce costs. Consolidation includes acquiring other competitors to create a larger footprint (referred to in this paper as "bulking up"), as well as selling off less profitable pieces of the business to focus on more profitable areas.<sup>19</sup>

It appears that bulking up, increasing in size in the hopes of becoming "too big to fail," has become necessary in order to compete. For example, the seven original Baby Bells have become three: Verizon, AT&T, and CenturyLink.<sup>20</sup> And the large standalone interexchange carriers, like (the old) AT&T and MCI, have, for all intents and purposes, disappeared altogether. At the same time, primarily rural companies like FairPoint and Frontier are also bulking up by buying the smaller pieces of large carriers like Verizon, although the results of these transactions have so far been mixed.<sup>21</sup> Wireless companies like Verizon and AT&T are also bulking up, extending their reach (and hedging their bets on the long-term prospects of their wireline and

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<sup>18</sup> In marketing, an offer is considered "sticky" if it causes customers to "stick" with the company or the product even if a competitor offers a better deal. Sticky offers in telecommunications include discounts for purchasing more than one product or for agreeing to a long-term contract. Wireless companies make offers sticky by offering free or discounted handsets to customers who sign long-term contracts.

<sup>19</sup> For example, Verizon has begun "selectively reducing" its territory by selling lines to smaller companies like FairPoint and Frontier. This process will continue and perhaps even accelerate as Verizon and other traditional wireline companies continue to focus on their wireless and fiber rather than traditional wireline divisions.

<sup>20</sup> CenturyLink absorbed the old Qwest into a new consolidated carrier that includes Embarq (the former Sprint wireline company) and, recently, Savvis.

<sup>21</sup> FairPoint declared bankruptcy shortly after purchasing the Verizon territories in Maine, New Hampshire, and Vermont. Frontier appears on track to meet its merger targets but has been shedding much of the fiber-based FiOS service it purchased from Verizon in order to reduce costs.

fiber-based VoIP businesses) by attempting to acquire their smaller competitors.<sup>22</sup> Cable companies, too, have expanded their footprints by trading properties or merging with others.

CLECs have followed this trend and have also begun to combine in order to achieve the national footprint necessary to serve large business accounts. CLECs have been aggressively purchasing their competitors in order to expand the reach of their fiber infrastructure and increase the size of their addressable markets. For example, Birch acquired Cordia as part of an "acquisition strategy designed to build customer density throughout [their] footprint."<sup>23</sup> Paetec acquired McLeod, and Cavalier is now being acquired by Windstream.

Cable and satellite companies have also expanded their footprints by trading properties or merging with others. Some are considering acquiring noncable telecommunications providers in order to extend the reach of their voice services.<sup>24</sup> Others are moving into new markets. According to Bloomberg News, Dish Network is considering purchasing Sprint in order to create a bundled TV-telecommunications offer. As the Bloomberg article points out, "Dish needs a wireless network to utilize the spectrum it has acquired in its deals for DBSD North America Inc. and Terrestar Networks Inc. announced this year."<sup>25</sup>

To smooth the way for these acquisitions, the National Cable and Telecommunications Association (NCTA) has requested that the FCC issue a declaratory ruling that section 652 of the 1934 Communications Act, as amended, which bans the merger of local exchange carriers (LECs) and cable operators, does not apply to transactions involving CLECs.<sup>26</sup>

## **B. What options do regulators have for responding to market consolidation?**

Regulators often find themselves on the horns of a dilemma when dealing with market consolidation.<sup>27</sup> Consolidation removes smaller, potentially more consumer-focused companies

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<sup>22</sup> Verizon acquired Alltel in 2008. As of 11-2011, the AT&T-proposed merger with T-Mobile USA remains in question and is the subject of a suit by the DoJ.

<sup>23</sup> See Birch Completes Acquisition of Cordia U.S. CLEC Assets - FierceTelecom [http://www.fiercetelecom.com/press\\_releases/birch-completes-acquisition-cordia-us-clec-assets?utm\\_medium=nl&utm\\_source=internal#ixzz1b9a7jXX5](http://www.fiercetelecom.com/press_releases/birch-completes-acquisition-cordia-us-clec-assets?utm_medium=nl&utm_source=internal#ixzz1b9a7jXX5)

<sup>24</sup> See FCC Docket 11-148 seeking comment on Time Warner Cable's request to acquire Insight Communications <http://fjallfoss.fcc.gov/ecfs/proceeding/view?name=11-148>

<sup>25</sup> TRDaily, 8/24/11

<sup>26</sup> NCTA Petitions Regarding Section 652 of the Communications Act, WC Docket No. 11-118

<sup>27</sup> Sherry Lichtenberg, Ph.D., *Evaluating the Proposed Merger of CenturyLink and Qwest Communications*, NRRI, July 2010. Available at [http://www.nrri.org/pubs/telecommunications/NRRI\\_merger\\_evaluation.pdf](http://www.nrri.org/pubs/telecommunications/NRRI_merger_evaluation.pdf)

from a state, but, if managed properly, these consolidations may increase the ability of the merged company to provide advanced services such as broadband. As the FCC pointed out in the USF NPRM, mergers may be the only way to ensure continued service in the most rural areas of the country without substantially raising prices or USF assessments.

Our current universal service rules may have the unintended consequence of discouraging beneficial consolidation of small carriers by subsidizing inefficient operating structures and limiting the ability of small companies to acquire and upgrade lines from other providers that have little interest in the rural market.... Although we recognize the benefits of local firms serving local markets, it may not serve the public interest for consumers across the country to subsidize the cost of operations for so many very small companies, when those companies could realize cost savings through implementation of efficiencies of scale in corporate operations that would have little impact on the customer experience.<sup>28</sup>

The current wave of mergers suggests that it may be time to rethink the question of whether telecommunications is a natural monopoly (or a duopoly, given the increasing market share of the cable companies) and should be regulated as such. TA96 envisioned a competitive market in which large national carriers, the Bell Operating Companies, and multiple new entrants competed with each other to provide consumers with high-quality service at low prices. That market has changed significantly as a result of the consolidation of the large local and long-distance providers, the availability of new services like VoIP, and the entry of new providers like the cable companies. Indeed, the consolidation of both the traditional wireline providers and many of the larger CLECs may be strong evidence that, in the current political/regulatory environment, the marketplace may only be able to sustain a few, large companies. The question, then, is whether this consolidation has decreased customer options, reduced quality, and raised prices. If that is the case, a return to regulation may also be necessary to ensure that corporate goals support the public good.

The full impact of these mergers and acquisitions remains to be seen, but regulators must understand the trend toward consolidation in order to adjust their regulatory strategies to address these ongoing industry changes. In some states, for example California, regulators have the opportunity to review national mergers and acquisitions like AT&T's purchase of T-Mobile to determine whether they are in the public interest. In others, where regulators do not have jurisdiction over mergers or acquisitions, they can use the other tools in their arsenal—for example, quality-of-service standards, wholesale interconnection rules, the requirement for customer notice of changes to ownership or cessation of service, or ETC designation—to ensure that merged companies continue to provide quality service at reasonable rates. In all cases, a key

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<sup>28</sup> *Connect America Fund, et al., Further Inquiry Into Certain Issues In The Universal Service-Intercarrier Compensation Transformation Proceeding, WC Docket Nos. 10-90 et al., DA 11-1348 (released August 3, 2011) (February 9, 2011) (the “Further Inquiry”).*

part of ensuring that consolidation has a positive outcome for both consumers and business is reviewing and evaluating these changes over time.<sup>29</sup>

Given the drive to consolidation, what regulators must focus on now is how they can ensure that consumers are protected from high prices and low quality even as fewer companies compete and regulation is withdrawn. This issue is discussed below.

### **III. Product Substitution and Market Consolidation Have Changed the Competitive Landscape.**

"Perfect competition" is characterized by few barriers to entry, open information available to all, and low switching costs. In a fully competitive market, quality of service improves as consumers exercise their competitive choices and move from good suppliers to even better ones. This section discusses the key attributes of competitive markets and provides questions regulators should ask to evaluate the level of competition in their states' telecommunications market. Examining these issues will help regulators ensure that customers can make product substitutions and markets consolidate in ways that support rather than diminish competition.

#### **A. Competition is the effort of two or more parties acting independently to secure the business of a third party by offering the most favorable terms.<sup>30</sup>**

State laws define competition in a variety of ways. For example, Michigan, Wisconsin, and New Mexico define competition based on the number of providers from which a customer may choose, without regard to technology. Some other states and the FCC define competition in terms of the number of companies providing service in a specific area. Nearly all states include the availability of wireless service in judging whether a market is competitive, even if that service is available from only one source, is provided by the same carrier that provides the local wireline service, or is not of the same quality as fixed wireline or VoIP service. In Florida, the 2011 Telecommunications Reform Act simply declares the market open, as does new legislation in Maine.<sup>31</sup>

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<sup>29</sup> The conundrum here, of course, is that any "reclassification" of services from "telecommunications" to "information" service may negate any state commission role in the merger and/or the imposition of conditions that address situations like those in rural markets.

<sup>30</sup> Webster's Dictionary, available at <http://www.merriam-webster.com/dictionary/competition>

<sup>31</sup> For the FL Regulatory Reform Act, see <http://laws.flrules.org/node/5694>; for the Maine bill H.P. 1075, see [http://www.mainelegislature.org/legis/bills/display\\_ps.asp?LD=1466&snum=125](http://www.mainelegislature.org/legis/bills/display_ps.asp?LD=1466&snum=125)

In each of these cases, the definition of “competition” is static, decided once and then not updated, even when the number of competitors, the products offered, or other circumstances change. For example, a market may have 10 to 20 suppliers, but that market is more constrained if one or two of those suppliers provide services to the vast majority of consumers in that market. In addition, while Section 271 of TA96 provides a checklist for determining when (and whether) local markets become "irreversibly open to competition," it provides no formal mechanism for the ongoing "testing" of that competition.<sup>32</sup>

Identifying the number of competitors in a market is only the first step in judging whether that market truly is "competitive." Competitive markets don't just provide choices; they encourage customers to take advantage of those choices. As we noted previously, traditional definitions of competition are based on the number of competitors, the percentage of the market served by a provider or providers, and the products among which customers can choose. But this definition focuses on the question of whether there *are* choices rather than on the question of whether customers actually do choose to substitute "good" suppliers for "bad" ones. In the "real world," customer behavior identifies the degree to which a market is actually competitive. In markets that are truly competitive, consumers have multiple service options and a variety of providers from which to choose. They "regulate" providers by avoiding those who do not meet the public good and choosing those who do, even absent the constraints provided by regulation and oversight.

If changing providers requires more work than staying (even if the service is poor or not what the customer ordered or expected), inertia will tip the scales against change. The test of competition, then, is not just the number of competitors. It is whether competition makes service and support better because customers actually do switch from poor providers to good ones. Absent that ability, there is no real competition.

State regulators are in the best position to monitor markets to determine whether they are competitive and to suggest regulatory penalties for those that are not.

Market monitoring helps regulators oversee the performance of markets. It requires regulators to compile and interpret information on a periodic basis. Overall, it can assist regulators in: (1) ensuring marketer and utility compliance with in-place rules and regulations, (2) overseeing and evaluating the performance of a [competitive market, (3) identifying problems with potential harm to consumers, and (4) taking the right actions to mitigate the problems<sup>33</sup>

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<sup>32</sup> Section 271 of TA96 also provides a method for challenging an ILEC's entry into the long-distance market if it appears that the company is not providing equivalent service to competitors, but it does not provide an ongoing evaluation process.

<sup>33</sup> Ken Costello, *Gas Choice: Do Residential Customers Benefit?* NRRI, July 2011. [http://www.nrri.org/pubs/gas/NRRI\\_Gas\\_Choice\\_July11-14.pdf](http://www.nrri.org/pubs/gas/NRRI_Gas_Choice_July11-14.pdf)

Regulators should analyze the level of competition available in their states in terms of the ability of customers to get the service they want (be it wireline, cable, over-the-top VoIP, wireless, or something else entirely) at a price they can afford, with terms and conditions that will allow them to "vote with their feet" if quality or other problems make them dissatisfied. They should begin their assessment of the level of competition in the telecommunications market by evaluating a number of criteria, including the number of carriers that serve each market and the number of customers who actually change providers over time. In states where the commission prepares yearly competition reports, regulators can also use the information garnered from these documents to determine how competition has changed over time and whether it remains sufficient to continue to declare the market "open."

The following section provides key questions regulators should ask in analyzing whether a market is competitively open.

**B. Five questions regulators (and legislators) should ask to determine whether a market is sufficiently competitive to function with reduced regulation**

Regulation is necessary to align private behavior with the public good. Competition can serve the same purpose as regulation if customers not only have choices but also actually exercise those choices in order to "discipline" their providers.

The following paragraphs provide key questions regulators should ask to determine whether a market is actually open or has begun to slip back into a less competitive state.

**1. How should I define the market(s) for telecommunications services in my state?**

The way we define a "market" depends on who is using the term and for what. Markets can be defined by location (local calling area, LATA, MSA, city, state, and so forth), by product availability, or in numerous other ways.

Economists drawing classroom supply and demand diagrams define a market as a mechanism for price determination, or as a locus of exchange within which buyers and sellers interact to determine the price of a good or service. The economist's market encompasses all participants whose actions affect price. Antitrust courts and enforcement agencies often use the term "market" to refer to the product and geographic space within which a hypothetical monopolist or cartel could raise price above the competitive level for a significant time without causing defections by buyers (demand response) or entry by other suppliers (supply response)—either of which would make the price increase unprofitable. Business firms may use the term "market" in a looser sense to mean the area in

which they sell their products or to refer to the industry or sector to which they belong.<sup>34</sup>

Regulators should begin their study of market openness by determining the size and scope of the market they seek to define. The following paragraphs provide some suggestions for the way in which regulators can define the markets in their state to determine if they are truly competitive.

**a. Define markets by product purpose; for example, voice or data.**

Product substitution has changed the way in which we look at markets. For example, in large urban areas, the market for voice communications includes wireless service, wireline service, and VoIP service, whether provided over a wireline DSL connection or a cable connection. In more rural markets, the choices for voice services may be more limited, but the choice will still be among equivalent types of service. Thus, regulators may want to define the market as voice service in general rather than by the type of connection over which the service is provided. The market for data products can be defined similarly. Alternatively, the market could be defined by the availability of basic services such as a single voice connection that provides access to emergency services versus the availability of enhanced or bundled services.

**b. Define markets by customer type.**

Residential customers, small business customers, and large business customers each have different service requirements. Regulators should examine different categories of customers separately in determining the level of competition in a market. For example, there may be fewer competitors for residential customers and more for business customers, because of the revenue each class of customer will generate or the technical requirements for reaching individual consumers as opposed to a single business location. By evaluating each of these customer classes differently, regulators can ensure that significant competition in some market segments does not obscure a lack of competition in others.

**c. Define markets by customer density.**

Customers in rural markets will generally have fewer choices than customers in urban markets, so these markets may be less competitive than urban locations. In addition, rural markets may need more oversight to ensure that customers can take advantage of competitive choice. Because the quality and usability of products like wireless service are dependent on the number of cell sites and type of equipment deployed in a specific area, defining smaller market areas may also help to ensure that the services available are actually substitutable for each other.

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<sup>34</sup> Ed Rosenberg, Ph.D., *Assessing Wireless and Broadband Substitution in Local Telephone Markets*, NRRI, June 2007. <http://nrri.org/pubs/telecommunications/07-06.pdf>

**2. How many providers serve the identified markets? Has this number increased or decreased over time?**

The more providers that serve a specific market, the greater will be the potential for real competition among them. Regulators should determine how many providers are enough to define a market as competitive. Are one wireline provider, one cable (i.e., digital voice) provider, and one or two wireless providers enough to give customers a choice? What if only one of these providers offers a basic service (i.e., a single connection with access to emergency services)? Should we count nomadic VoIP providers like Vonage or Skype as distinct competitors, even though they depend on a broadband connection (DSL, FiOS, U-Verse or cable) to provide service? Is a market competitive if there are competing product choices but not competing providers for the same or similar products?

In this vein, the Department of Justice's (DOJ) Herfindahl-Hirschman Index ("HHI") is instructive. The DOJ's HHI is a complex formula that attempts to measure market presence, market concentration, and market choices under antitrust law. The HHI is a measure of the size of firms in relation to the industry and, as such, is an indicator of the amount of competition among them. Increases in the HHI index as firms consolidate generally indicate a decrease in competition and an increase in market power, whereas decreases in the HHI index indicate the opposite.<sup>35</sup> The HHI index has been most recently used in connection with the DOJ's opposition to the proposed merger of T-Mobile Communications and AT&T Communications. In this case, the DOJ has used changes in the HHI to show that eliminating T-Mobile as a separate wireless competitor will negatively impact the choices available in both the residential and small-business wireless market.<sup>36</sup>

As markets consolidate and players leave the field, regulators should pay particular attention to the types of options that remain. For example, do all players offer a basic service that provides a single voice connection without features or even data access? Or must all customers purchase bundles that include both local and long-distance calling or voice service that requires a broadband connection?

Regulators should review their decision on whether a market is competitive on a yearly basis and work with their state legislatures to determine how they might reimpose regulation if necessary to ensure that companies are meeting the public need.

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<sup>35</sup> See [http://en.wikipedia.org/wiki/Herfindahl\\_index](http://en.wikipedia.org/wiki/Herfindahl_index)

<sup>36</sup> *United States of America, et al. v. AT&T Communications, Inc., T-Mobile Communications, Inc. and Deutsche Telekom, AG*, Civil Action No. 11-01560 (ESH) (United States District Court, District of Columbia, September 16, 2011).  
<http://www.justice.gov/atr/cases/f275700/275756.pdf>



**3. How many and what types of products are available in a specific market?**

Competition depends on the availability of options. Products can substitute for one another if each performs the same function, is comparably priced, and is generally of the same quality. In competitive markets, customers can choose among multiple suppliers who offer similar products that can be used interchangeably. For example, the sweeteners Sweet’N Low, Splenda, and Equal all substitute for sugar and for each other.

Regulators must determine what products they should include in the markets they defined in response to question 1 above. Commenters usually consider wireline voice, cable (digital) voice, and wireless to be substitutable products, but how should we categorize nomadic VoIP products? Should we add them to the list of competitive options available to consumers? Or do they fit somewhere else? For example, since nomadic VoIP products do not necessarily include emergency access to 911 and require still another product (a broadband connection) in order to function, are they substitutable for products that have these features?

**4. Are customers aware that they have a “choice”? Do they have access to comparative pricing data? Do they understand the differences between competing products?**

To ensure that customers make the best choice they can, regulators need to work with consumer advocates and consumer groups to ensure that customers know that competing products are available and understand the differences between one product and another. In order to select the product that best meets their needs, customers must understand the features, functions, and limitations of each. For example, although VoIP-based and traditional circuit-switched wireline products (plain old telephone service, or POTS) both provide the ability to communicate with others on the public switched network (PSTN), VoIP products do not generally draw their power from the provider’s network and, therefore, will need electricity to operate. Thus, they may not be the best choice in an area prone to power outages.

Regulators should also take advantage of consumer protection laws in their states to require companies to point out limitations in their products. Regulators can also work with providers, community groups, and others to ensure that customers understand the choices available to them and to show customers how to compare one product to another. Such customer outreach will encourage competition by ensuring that customers know what choices are available to them and consider their options fully before making a choice.

**5. Can customers move easily from one carrier to another?**

Even when customers are aware of choices, they must be able to exercise them. As products become more costly and providers bundle multiple services together, the ability to exercise choice becomes limited. Providers work to make their products more "sticky," so that, like flies stuck on flypaper, customers stay where they are rather than move on as their needs change. This type of arrangement is not unusual. It can benefit customers by exchanging a

reduced price for a guarantee that the supplier will continue to receive income from the customer for a specific period of time. However, it could also be an indicator of market power.

Regulators should examine whether customers must sign multi-year contracts with penalty clauses in order to receive the "best" price. They should also analyze movement between providers over time. If customers appear to leave at fairly regular intervals—for example, every two years—they may be contractually stuck to a specific carrier, regardless of their satisfaction with the product or the service they are receiving.

Other forces can also limit customers' ability to exercise choice. For example, customers who change to fiber-to-the-home-based services like FiOS may not be able to switch to a competitor that provides traditional circuit-switched wireline service without waiting for the incumbent provider to reinstall the copper wire needed by the CLEC.<sup>37</sup> In addition, customers who bundle their voice and internet access may face delays in transferring to other companies (or even decide to "stay put") because a transfer would require the change of their email address.

The United Kingdom's Office of Communications (Ofcom) has begun to address the problem of "unintended" contractual stickiness by barring telecommunications service providers from signing customers to contracts that automatically renew unless customers opt out. The ban will apply to automatically renewable contracts for landline and broadband services sold to residential and small business customers, and all rollover contracts must be removed from the market entirely by the end of 2012.<sup>38</sup> Although U.S. customers do not yet have the protection planned by Ofcom, state regulators can help to address these issues, ensuring that customers understand not only the features of the products they purchase but their contract requirements as well. In so doing, regulators can arm consumers with the knowledge they need to make the best choices in a competitive market. State legislatures will continue to reduce regulation in response to perceived competition among services and suppliers.

#### **IV. State Legislatures Will Continue to Reduce Regulation in Response to Perceived Competition among Services and Suppliers.**

State legislatures from Florida to Maine have reduced state jurisdiction over telecommunications in response to increased competition and the perception that regulation limits innovation. This trend seems likely to continue throughout the decade as broadband penetration increases, customers continue to move from wireline to VoIP and wireless services, and companies and legislators seek new ways to increase revenues while decreasing cost. Regulators should work with legislators and providers to minimize the harm that could stem

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<sup>37</sup> Verizon customers who want to cancel their FiOS service and return to traditional circuit-switched voice service face this same issue.

<sup>38</sup> *TR Daily*, September 14, 2011

from reduced oversight on consumers, particularly the economically and socially disadvantaged who may be unable to switch providers to gain better service.

The Florida Telecommunications Reform Act of 2011 is instructive in understanding the way in which legislative changes have limited commission oversight. The Act reduces the Florida Public Service Commission's jurisdiction over retail telecommunications, moves the task of responding to retail customer questions and complaints to the Department of Agriculture and Consumer Service, makes the filing of tariffs optional, and removes all oversight of interexchange and wireless carriers, as well as reducing or removing oversight over the majority of the retail services provided by wireline carriers, including slamming and retail quality of service.<sup>39</sup> While the commission retains the task of designating Eligible Telecommunications Carriers (ETCs) for purposes of federal universal service support, it does so only for wireline carriers. Wireless carriers must seek ETC designation from the FCC.

Similar reductions in oversight have been introduced or enacted in other states during 2010 and 2011. For example, states like Texas and Arkansas have amended their telecommunications regulations to remove the requirement that ILECs file tariffs, removed quality-of-service regulation or limited metrics to "basic services" only, and exempted a carrier from regulation when it has at least two unrelated competitors (including intermodal carriers).

In Texas, a new law eliminates price floors and other regulatory oversight and requires the Public Utility Commission to review and evaluate the state's Universal Service Fund. The new law prevents the PUC from regulating a market that was deregulated as of September 1, 2011.<sup>40</sup> In Arkansas, Act 594 amends the Telecommunications Regulatory Reform Act of 1997 to "remove quality-of-service regulation of wireline services provided in the competitive exchanges of electing companies in order to encourage private-sector investment in the telecommunications marketplace."<sup>41</sup> And a new Kansas law amends section 66-2005 of the Kansas Statutes to allow price-deregulated LECs to "elect to be regulated as telecommunications carriers, not subject to price regulation, and regulated in the same manner as and subject to no more regulation than other telecommunications carriers [CLECs] operating in the state." The law also eliminates carrier-of-last-resort obligations except "in any exchange in which there are between 6,000 and 74,999 local exchange access lines served by all providers" until July 1, 2014,

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<sup>39</sup> The Florida Regulatory Reform Act is available at [http://laws.flrules.org/files/Ch\\_2011-036.pdf](http://laws.flrules.org/files/Ch_2011-036.pdf). NRRRI's internal assessment of the Act can be accessed at <http://bit.ly/n0hiWH>.

<sup>40</sup> See <http://www.sos.state.tx.us/statdoc/bills/sb/SB980.pdf>

<sup>41</sup> See <http://www.arkleg.state.ar.us/assembly/2011/2011R/Acts/Act594.pdf>

and in any rural exchange where there are fewer than 6,000 local exchange access lines served by all providers.<sup>42</sup>

ILECs are working with the legislature in other states to pass similar bills. In New Hampshire, for example, FairPoint is pushing regulators to "remove the shackles on our ankles [and] [l]et us be like everyone else on the retail level."<sup>43</sup> And some legislators agree. According to James Garrity, the chairman of the New Hampshire House Science, Technology and Energy Committee,

I think we should get the PUC out of regulating retail communication. Let FairPoint, AT&T and Comcast beat each other up and bundle as many services as they want and see who wins. We are living with a 100-year-old regulatory system that ignores the facts on the ground—there is competition everywhere you look.

For carriers, a key result of decreased regulation is a reduction in the regulatory assessment fees they pay to state commissions, due primarily to a reduction in commission staff. As a result of the Telecommunications Reform Act of 2011, the Florida Public Service Commission lowered the regulatory assessment fee it charges the industry by 20 percent. During the first year of rule implementation (2012-2013), payments to the commission by telecommunications companies are expected to decrease by \$1,185,115.<sup>44</sup>

As the trend toward decreased regulation continues, state commissions have started to review the way in which these new laws have (or will) change their responsibilities and to examine options for meeting these new challenges. The Colorado Commission opened Docket 10M-565T in 2010 to create a telecommunications advisory group and "to convene advisory group meetings and to receive information from stakeholders and interested persons, to issue reports, and to draw conclusions about desirable changes to existing regulatory practice or existing telecommunications law."<sup>45</sup> In an October 5, 2011 ruling in this docket, the Commission set out three broad principles for responding to the potential for reducing regulation in response to increased competition. The ruling defines these principles as follows:

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<sup>42</sup> See

[http://www.kslegislature.org/li/b2011\\_12/year1/measures/documents/sb72\\_enrolled.pdf](http://www.kslegislature.org/li/b2011_12/year1/measures/documents/sb72_enrolled.pdf)

<sup>43</sup> FairPoint says deregulation would give it "nimbleness" and benefit customers. *New Hampshire Business Review*, 10/7/11, available at <http://www.nhbr.com/news/935097-395/fairpoint-says-deregulation-would-give-it-nimbleness.html>

<sup>44</sup> <http://www.psc.state.fl.us/home/news/index.aspx?id=814>

<sup>45</sup> Docket No. 10M-565T In The Matter Of The Creation Of A Telecom Policy Advisory Group For The Purpose Of Informing The Commission On Current Advancements In Telecommunications Technology And The Telecommunications Marketplace Pursuant To §40-15-101, C.R.S. available at [https://www.dora.state.co.us/pls/efi/EFI.Show\\_Docket?p\\_session\\_id=&p\\_docket\\_id=10M-565T](https://www.dora.state.co.us/pls/efi/EFI.Show_Docket?p_session_id=&p_docket_id=10M-565T)

- (a) Access to modern communications technologies, including broadband, is a foundation for economic development and innovation.
  - I. The concept of universal service must be updated to encompass voice, broadband data access, and mobility.
  - II. Subsidies to support consumer broadband access should be focused on capital investment only and be based on actual and prudent costs.
  - III. The legacy of the Colorado High Cost Support Mechanism shall be transitioned in a manner that is fair and equitable.
- (b) Competitive markets provide choices for consumers in telecommunications prices and services in most regions of the state.
  - I. Where there is adequate competition, there will be no company subsidies.
- (c) Intrastate access charges shall move toward unified rates for all providers.
  - I. Any subsidies provided to offset revenue loss of intrastate access rates need to be explicit and not contained in access rates.<sup>46</sup>

The "jury is still out" on the effect of legislation that reduces regulation, but commissions can use their existing tools to monitor both negative and positive market changes. For example,

1. Commissions should use the opportunity presented by the need to implement (or design) these new laws not only to review the immediate impact of the legislation but also to prepare for tracking its results and adapting to future changes.
2. Commissions that prepare reports on the status of competition for their state legislature (for example, Michigan and Florida) can use these reports to identify whether the reduction in regulation has actually resulted in an increase in the competitive choices available to customers. They can also use these reports to assess pricing trends, quality-of-service issues, and evaluate the number of customers that move from one company to another during the year.

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<sup>46</sup> Decision No. C11-1094. DOCKET NO. 10M-565T, available at [https://www.dora.state.co.us/pls/efi/EFI.Show\\_Docket?p\\_session\\_id=&p\\_docket\\_id=10M-565T](https://www.dora.state.co.us/pls/efi/EFI.Show_Docket?p_session_id=&p_docket_id=10M-565T)

3. Commissions can use information generated by Lifeline and other subsidy programs to measure whether changes in rates by carriers who are no longer regulated have increased the need for state or federal support.

Finally, commissions should consider adopting creative solutions to problems that may arise from limited oversight, including working with service providers to encourage positive behaviors, teaming with other agencies that retain the power to investigate and resolve issues, and working with state legislators to identify and find ways to resolve unanticipated problems.

## V. Summary

To respond to changes in telecommunications policy and regulation, regulators should expand their roles from overseers and arbiters of company behavior to consumer educators, contract negotiators, and evaluators of competition. This process will be complicated by the fact that both state legislatures and the FCC may continue to limit regulators' scope of action by legislation and/or by questions concerning whether the products whose quality and availability they seek to ensure are “telecommunications” or “information” services under existing law.

Even then, any regulator’s response should be considered in light of the following trends: (1) the blurring of distinctions among products; (2) the consolidation of companies and the products they sell; (3) the changing face of competition; and (4) reduced regulation and oversight of both incumbent and competitive providers. These trends will have significant effects on regulators, consumers, and companies over the next decade.

Responding to these trends within the current legal “telecommunications”-versus-“information”-service dichotomy will require commissions to plan for the future while not losing sight of the past and to proactively consider not just how to implement the requirements of legislation reducing their regulatory authority but also how to track the effects of that legislation and change course if necessary.

To help regulators understand and address these changes, this paper has provided a brief guide to the key trends facing the industry and regulation and suggested ways in which regulators can influence company and consumer behavior even when they can no longer regulate them. These actions include:

1. Reviewing current quality-of-service standards and determining whether and what type of changes are required based on changing customer expectations and the collapsing of the distinctions between different types of service.
2. Evaluating the impact of market consolidation on the choices available to consumers.
3. Analyzing and evaluating the level of competition available in key markets in order to assist consumers in understanding and deciding among the choices available to them.

4. Addressing the need for ongoing changes to regulation and tracking the impact of those changes on companies and consumers.
5. Understanding the current legal structure, in which “telecommunications” is jointly regulated by the states and the FCC (unless preempted) and “information” service is primarily within the FCC’s exclusive regulatory authority.